

# Low Impact Development Principles Project



## Chapter 20.20 General Development Requirements.

### 20.20.010 Uses in land use districts dimensional requirements.

#### Chart 20.20.010

Uses in land use districts Dimensional Requirements

STD LAND USE CODE REF	LAND USE CLASSIFICATION	RESIDENTIAL										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
	<b>DIMENSIONS</b>	(43)	(43)	(43)	(43)	(43)	(43)	(43)				
	...											
	Maximum Lot Coverage by Structures (percent) (13) (14) (16) (26) (27) (37) (39)	35	35	35	35	35	40	40	35	35	35	35
	Maximum Impervious Surface (percent) (35) (37) (39) <del>(48)</del>	<del>50</del> <u>40</u> (36)	<del>50</del> <u>40</u> (36)	<del>50</del> <u>40</u> (36)	<del>50</del> <u>40</u> (36)	<del>50</del> <u>40</u> (36)	<del>55</del> <u>45</u> (36)	<del>55</del> <u>45</u> (36)	<del>80</del> <u>60</u>	<del>80</del> <u>60</u>	<del>80</del> <u>60</u>	<del>80</del> <u>60</u>
	<u>Maximum Hard Surface Coverage (percent) (37) (39) (47) (48)</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>55</u>	<u>55</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>

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# Low Impact Development Principles Project



[...]

Uses in land use districts Dimensional Requirements

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3	Downtown Office 1	Downtown Office 2	Downtown Mixed Use District	Downtown Residential District	Downtown Old Bellevue District	Downtown Office and Limited Business District
		PO	O	OLB	LI	GC	NB	CB	F1	F2	F3	DNTN O-1	DNTN O-2	DNTN MU	DNTN R	DNTN OB	DNTN OLB
	<b>DIMENSIONS</b>	(8, 21)	(8, 21)	(8, 21)	(8, 21)	(8, 21)	(8, 21)	(8, 21)	(28)	(21, 31)	(21, 32)	(7)	(7)	(7)	(7)	(7)	(7)
	...																
	Maximum Lot Coverage by Structures (percent) (13) (14) (16)	35	35	35	50		35			35	40						
	Maximum Impervious Surface (percent) (35) (37)	<del>80</del> 60	<del>80</del> 60	<del>80</del> 60	<del>85</del> 65	<del>85</del> 65	<del>80</del> 60	<del>85</del> 65		<del>80</del> 60	<del>80</del> 60						
	<u>Maximum Hard Surface Coverage (37) (47)</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>85</u>	<u>85</u>	<u>80</u>	<u>85</u>		<u>80</u>	<u>80</u>						

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# Low Impact Development Principles Project



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- (13) Lot coverage is calculated after subtracting all critical areas and stream critical area buffers; provided, that coal mine hazards (20.25H.130) and habitat associated with species of local importance (20.25H.150) shall not be subtracted.
- (14) Maximum lot coverage by structures is determined after public right-of-way and private roads are subtracted from the gross land area.

[...]

- (16) Exceptions to Lot Coverage. Although not considered structures for purposes of calculating lot coverage, the following may be considered impervious surfaces subject to the impervious surface limits. See LUC 20.20.460 and 20.50.026.
  - (a) Underground buildings as defined in LUC 20.50.050 are not structures for the purpose of calculating lot coverage.
  - (b) Buildings constructed partially below grade and not higher than 30 inches above existing or finished grade, whichever is lower, are not structures for the purpose of calculating lot coverage subject to the following conditions:
    - (i) The 30-inch height limit must be met at all points along the building excluding those areas necessary to provide reasonable ingress and egress to the underground portions of the building; and
    - (ii) The rooftop of the building shall be screened from abutting properties with 10 feet of Type II landscaping as described in LUC 20.20.520.G.2 except that the required trees shall be a minimum of 10 feet in height at planting; or, if a use is proposed for the rooftop, the rooftop may be landscaped consistent with the planting requirements for the specific use that is proposed and for the land use district in which the use is located. All landscaping shall comply with standards set forth in LUC 20.20.520. The provisions of LUC 20.20.520.J (Alternative Landscaping Option) are applicable.

[...]

- (26) See LUC 20.20.125 for specific requirements applicable to detached accessory structures.
- (27) Lot coverage for schools located in residential land use districts is limited to 35 percent of the site area (refer to LUC 20.20.740).

[...]

- (35) See LUC 20.20.460 for exceptions and performance standards relating to impervious surface.
- (36) Impervious surface limits for legally established nonconforming nonresidential uses and for new allowed nonresidential uses in these residential land use districts shall be 80 percent.

# Low Impact Development Principles Project



(37) Maximum hard surface, maximum impervious surface and maximum lot coverage by structures are independent limitations on allowed development. All areas of lot coverage by structures are included in the calculation of total maximum impervious surface, unless such structures are excepted under LUC 20.20.460, and all areas of impervious surface coverage are included in the calculation of total maximum hard surface coverage.

[...]

(47)See LUC 20.20.425 for exceptions and performance standards relating to hard surfaces.  
(47)(48)Where the application of permeable pavement has been determined to be infeasible using the infeasibility criteria in the 2014 Department of Ecology Stormwater Management Manual for Western Washington, now or as hereafter amended, the maximum impervious surface coverage may be exceeded, up to the maximum hard surface coverage allotment.

[...]

## **20.20.025 Intrusions into required setbacks.**

- A. Signs, Marquees and Awnings.
  - 1. See Sign Code, Chapter 22B.10 BCC.
- B. Garages/Carports on Slopes.
  - 1. If the topography of a lot is such that the front building line is eight feet or more above the street grade, and there is no reasonable way to construct a driveway up to the dwelling level, a garage/carport may be built into the bank and set at least five feet back from the front property line, except as set forth in subsection B.4 below.
  - 2. If the topography of a lot is such that there is no reasonable way to construct a driveway with a slope less than 15 percent to the dwelling level, a garage/carport may be built in the front yard setback, LUC 20.20.010, subject to approval by the Director of the Development Services Department. The garage/carport must be set at least five feet back from the front lot line, and may not exceed 15 feet above street level measured to the peak of a pitched roof or nine feet above street level measured to the top of a flat roof. The garage/carport and its vehicular access must be located and oriented to minimize disturbance of the slope.
  - 3. A garage/carport must comply with the street intersection sight obstruction requirements of BCC 14.60.240.
  - 4. Notwithstanding any other provision of this subsection B to the contrary, a garage/carport may not be located within a critical area or critical area buffer unless allowed under Part 20.25H LUC.
- C. Minor Building Elements.

Subject to LUC 20.20.025.C.3, minor building elements including patios, platforms, eaves, trellises, open beams, fireplace chimneys, decks, porches, balconies, lanais, bay windows, greenhouse windows and similar elements of a minor character may intrude into a required setback as follows:

  - 1. Any portion of a minor building element which equals or exceeds 30 inches above finished grade at its location may intrude into a required setback a distance no greater than 20 percent of the minimum dimension of that setback, or at least 18 inches, whichever is greater.

# Low Impact Development Principles Project



2. Any portion of a minor building element which is less than 30 inches above finished grade at its location may extend to any lot line.
3. Except for eaves, the combined length of all minor building elements which equal or exceed 30 inches above finished grade on any building facade shall not exceed 25 percent of the length of that facade.
4. Minor building elements may not be used to extend the enclosed building floor area into the required setback, except chimneys and bay windows protruding no more than 18 inches into the setback may extend to the finished grade at their location.
5. A minor building element may extend into a critical area structure setback required by LUC 20.25H.035 only if it is above the ground level and if vegetation will be maintained in a healthy condition. Solar access to vegetation must be maintained at least 50 percent of daylight hours during the normal growing season.

Note: Heat pumps are not minor building elements. Retaining walls and rockeries 30 inches or greater in height are not minor building elements.

D. Rockeries and Retaining Walls.

On a lot of less than 30,000 gross square feet or on any single-family lot, rockeries and retaining walls 30 inches or greater in height may extend into setbacks established by LUC 20.20.010; provided, that the existing grade change is such that no feasible alternative to location or height exists. In any event, the critical area buffer and structure setbacks of LUC 20.25H.035 apply.

E. Underground Buildings and Buildings Constructed Partially Below Grade.

1. Limitations. This subsection cannot be used to develop any building (including an underground building) which intrudes into critical areas, critical area buffers, or critical area structure setbacks required by Part 20.25H LUC.
2. Subject to the limitations contained in this subsection E, underground buildings may intrude in the required setback.
3. Subject to the limitations contained in this subsection E, buildings constructed partially below grade and not higher than 30 inches above existing or finished grade, whichever is lower, may intrude into required setbacks subject to the following conditions:
  - a. The 30-inch height limit must be met at all points along the building except those areas necessary to provide reasonable ingress and egress to the underground portions of the building; and
  - b. The rooftop of the building shall be screened from abutting properties with 10 feet of Type II landscaping as described in LUC 20.20.520.G.2 except that the required trees shall be a minimum of 10 feet in height at planting or, if a use is proposed for the rooftop, the rooftop may be landscaped consistent with the planting requirements for the specific use that is proposed and for the land use district in which the use is located. All landscaping shall comply with standards set forth in LUC 20.20.520. The provisions of LUC 20.20.520.J (Alternative Landscaping Option) are applicable. (Ord. 5683, 6-26-06, § 6; Ord. 5232, 7-17-00, § 3; Ord. 5089, 8-3-98, §§ 6, 7; Ord. 4973, 3-3-97, § 889; Ord. 4816, 12-4-95, § 989; Ord. 4654, 6-6-94, § 23; Ord. 3775, 5-26-87, § 8)

F. LID Elements. Where feasible, LID BMPs such as bioretention facilities may be located within setbacks required in LUC 20.20.010, provided they conform to the setback requirements in the City of Bellevue Storm and Surface Water Engineering Standards.

# Low Impact Development Principles Project



[...]

## **20.20.425 Hard surface.**

### **A. Purpose.**

Limits on the total amount of hard surfaces associated with site development are desirable to minimize vegetation loss and limit stormwater runoff, which are impacted by the increased level of surface flow generated by hard surfaces. Live plant foliage and groundcover intercept stormwater by retaining or slowing the flow of precipitation to the ground, and their roots protect soil from erosion. Preservation of naturally vegetated areas is a passive stormwater management tool that effectively reduces watershed function deterioration.

### **B. Applicability.**

Hard surfaces are defined in LUC 20.50, and shall include all surfaces considered impervious under 20.20.460, as well as permeable pavement surfaces and vegetated roofs. The hard surface limits contained in LUC 20.20.010 and the standards of this section, shall be imposed any time a permit, approval, or review including land alteration or land development including subdivisions, short subdivisions or planned unit developments, a change in lot coverage, or a change in the area devoted to parking and circulation is required by this Code, or by the International Building Code.

### **C. Exemptions.**

The following are exempted from determining maximum hard surface. These exemptions do not apply to any other Land Use Code requirement, including setbacks and limits on maximum lot coverage by structure, building code, utilities code or other applicable City of Bellevue codes or regulations.

1. Decks/Platforms. Decks and platforms constructed with gaps measuring one-eighth inch or greater between boards, so long as the surface below the deck or platform is pervious;
2. Rockeries/Retaining Walls. Rockeries and retaining walls shall be exempt from the maximum impervious surface limits;
3. Stabilization Measures. Shoreline stabilization measures shall be exempt from the maximum impervious surface limits; and
4. Landscape Features. Fences, arbors with lattice or open roof materials and similar structures, individual stepping stones placed in the ground but not cemented or held together with an impervious material, and organic mulch shall be exempt from the maximum impervious surface limits.

### **D. Performance Standards.**

1. Design shall minimize topographic modification. Changes in existing grade outside the building footprint shall be minimized. Excavation shall not exceed 10 feet. Fill shall not exceed five feet subject to the following provisions: all fill in excess of four feet shall be engineered; and engineered fill may be approved in exceptional circumstances to exceed five feet to a maximum of eight feet. Exceptional circumstances are: (1) instances where driveway access would exceed

# Low Impact Development Principles Project



15 percent slope if additional fill retained by the building foundation is not permitted; or (2) where the five-foot fill maximum generally is observed but limited additional fill is necessary to accommodate localized variations in topography.

2. High-value natural areas, which include, but are not limited to retained significant trees and their understory and areas of native vegetation, shall be identified during site development. Locations of buildings, roads and infrastructure shall not impact high-value natural areas. Retained significant trees and their understory, and areas of native vegetation shall be fenced and adequately protected during construction, consistent with the provisions in BCC 23.76. Native plants should be salvaged from areas to be cleared and transplanted to other areas of the site where feasible.

E. Maintenance and Assurance.

1. Pervious pavement and other hard surface techniques designed to mimic shall be designed by a professional engineer licensed by the State of Washington and the plans are approved by the Director. The Director may require a maintenance plan and long-term performance assurance device to ensure the continued function of the pervious pavement or other technique.

[...]

## **20.20.460 Impervious surface.**

A. Purpose.

Limits on the total amount of impervious surfaces associated with site development are desirable to protect critical areas and limit stormwater runoff, which are impacted by the increased levels and rates of surface flow generated by impervious surfaces.

B. Applicability.

The impervious surface limits contained in LUC 20.20.010 and Chapter 20.25 LUC, and the standards of this section, shall be imposed any time a permit, approval, or review including land alteration or land development including subdivisions, short subdivisions or planned unit developments, a change in lot coverage, or a change in the area devoted to parking and circulation is required by this Code, or by the International Building Code.

~~C. Modifications to Impervious Surface Limits.~~

~~The impervious surface limits contained in LUC 20.20.010 and Chapter 20.25 LUC may be modified pursuant to a critical areas report, LUC 20.25H.230, so long as the critical areas report demonstrates that the effective impervious surface on the site does not exceed the limit established in LUC 20.20.010 and Chapter 20.25 LUC.~~

- ~~1. Garages on sites sloping uphill should be placed below the main floor elevation where feasible to reduce grading and to fit structures into existing topography. Garages on sites sloping downhill from the street may be required to be placed as close to the right-of-way as feasible and at or near street grade. Intrusion into the front setback, as provided in LUC 20.20.025.B,~~

# Low Impact Development Principles Project



~~may be required. On slopes in excess of 25 percent, driveways shall be designed to minimize disturbance and should provide the most direct connection between the building and the public or private street; and~~

- ~~2. Changes in existing grade outside the building footprint shall be minimized. Excavation shall not exceed 10 feet. Fill shall not exceed five feet subject to the following provisions: all fill in excess of four feet shall be engineered; and engineered fill may be approved in exceptional circumstances to exceed five feet to a maximum of eight feet. Exceptional circumstances are: (1) instances where driveway access would exceed 15 percent slope if additional fill retained by the building foundation is not permitted; or (2) where the five foot fill maximum generally is observed but limited additional fill is necessary to accommodate localized variations in topography.~~

## D.C. Exemptions.

The following are exempted from determining maximum impervious surface. These exemptions do not apply to any other Land Use Code requirement, including setbacks and limits on maximum lot coverage by structure, building code, utilities code or other applicable City of Bellevue codes or regulations.

1. Decks/Platforms. Decks and platforms constructed with gaps measuring one-eighth inch or greater between boards, so long as the surface below the deck or platform is pervious;
2. Rockeries/Retaining Walls. Rockeries and retaining walls shall be exempt from the maximum impervious surface limits;
3. Stabilization Measures. Shoreline stabilization measures shall be exempt from the maximum impervious surface limits; and
4. Landscape Features. Fences, arbors with lattice or open roof materials and similar structures, individual stepping stones placed in the ground but not cemented or held together with an impervious material, and gravel mulch shall be exempt from the maximum impervious surface limits.

## E.D. Performance Standards.

1. Design shall minimize topographic modification. Structures shall conform to the natural contour of the slope. The foundation shall be tiered or conform to the existing topography and step down the slope with earth retention incorporated into the structure where feasible. Standard prepared building pads, i.e., slab on grade, shall be avoided; and
2. Garages on sites sloping uphill should be placed below the main floor elevation where feasible to reduce grading and to fit structures into existing topography. Garages on sites sloping downhill from the street may be required to be placed as close to the right-of-way as feasible and at or near street grade. Intrusion into the front setback, as provided in LUC 20.20.025.B, may be required. On slopes in excess of 25 percent, driveways shall be designed to minimize disturbance and should provide the most direct connection between the building and the public or private street; and

# Low Impact Development Principles Project



3. Changes in existing grade outside the building footprint shall be minimized. Excavation shall not exceed 10 feet. Fill shall not exceed five feet subject to the following provisions: all fill in excess of four feet shall be engineered; and engineered fill may be approved in exceptional circumstances to exceed five feet to a maximum of eight feet. Exceptional circumstances are: (1) instances where driveway access would exceed 15 percent slope if additional fill retained by the building foundation is not permitted; or (2) where the five-foot fill maximum generally is observed but limited additional fill is necessary to accommodate localized variations in topography.

#### F.E. Existing Impervious Surfaces.

Impervious surfaces legally established on a site prior to **August 1, 2006**, and which exceed the limits set forth in LUC 20.20.010 and Chapter 20.25 LUC shall not be considered nonconforming. Proposals to increase impervious surface on a site shall conform to the limits of LUC 20.20.010 and Chapter 20.25 LUC; where a site already exceeds the allowed amount of impervious surface, the additional impervious surface shall not be approved unless an equal amount of existing impervious surface is removed such that the net amount of impervious surface is unchanged.

#### G.F. Innovative Techniques.

Surfaces paved with ~~pervious permeable~~ pavement or other innovative techniques designed to mimic the function of a pervious surface shall not be included in the calculation of impervious surface areas, however, they shall be included in the calculation of maximum hard surface areas, not including the exemptions listed in LUC 20.20.425.D. so long as the technique is designed by a professional engineer licensed by the State of Washington and the plans are approved by the Director. The Director may require a maintenance plan and long-term performance assurance device to ensure the continued function of the pervious pavement or other technique. (Ord. 5876, 5-18-09, § 13; Ord. 5683, 6-26-06, § 9)

[...]

#### **20.20.520 Landscape development.**

[...]

##### B. Applicability.

The requirements of this section shall be imposed any time a permit, approval, or review including land alteration or land development including subdivisions, short subdivisions or planned unit developments, a change in lot coverage or impervious surface, or a change in the area devoted to parking and circulation is required by this Code, or by the International Building Code, as adopted and amended by the City of Bellevue. However, this section does not apply to a permit for a single-family dwelling, unless restrictions on the removal of significant trees on individual single-family lots have been imposed through prior City approval.

# Low Impact Development Principles Project



[...]

## F. Site Landscaping

[...]

6. Existing Vegetation in Lieu of Landscape Development. If the proposal is located within the Critical Areas Overlay District, the Director shall waive the planting requirements of paragraphs F.1 and F.2 of this section and shall require the use of native vegetation that exists within a critical area or within a critical area buffer in lieu of landscape development if the width of that existing vegetated area equals at least twice the dimension required by paragraph F.1 or F.2 of this section. Supplemental landscaping may be added adjacent to a setback to create the necessary width.

[...]

- I. Species Choice. The applicant shall utilize plant materials which complement the natural character of the Pacific Northwest, and which are adaptable to the climatic, topographic, and hydrologic characteristics of the site, and shall include at least 50 percent native species in the required plantings. If the subject property is within the Critical Areas Overlay District, the applicant shall utilize plant species as specified by the Director which enhance that critical area and critical area buffer. In selecting species, the applicant should utilize plant materials which reduce or eliminate the need for fertilizers, herbicides, or other chemical controls, especially for properties within the Critical Areas Overlay District. Plant materials may not include noxious weeds or species, as designated by the Director.
- J. Alternative Landscaping Option.
  1. The applicant may request a modification of the landscaping requirements set forth in subsections E through I of this section; provided, however, that modification of the provisions of paragraph F.6 of this section may not allow disturbance of a critical area or critical area buffer.
  2. The Director may administratively approve a modification of the landscaping requirements of this chapter if:
    - a. The proposed landscaping represents an equal or better result than that which could be achieved by strictly following the requirements of this section; and
    - b. The proposed landscaping complies with the stated purpose of this section (subsection A), and with the purpose and intent of paragraphs F.1 and G of this section; and
    - c. If a modification of any paragraph excluding subsection E of this section is requested, the proposed landscaping either:
      - i. Incorporates the increased retention of significant trees and naturally occurring undergrowth; or

# Low Impact Development Principles Project



- ii. Better accommodates or improves the existing physical conditions of the subject property; or
  - iii. Incorporates elements to provide for wind protection or to maintain solar access; or
  - iv. Incorporates elements to protect or improve water quality; or
  - v. Incorporates native species in a design that better buffers a critical area and critical area buffer from uses on the site, including parking.
- d. If a modification of subsection E of this section is requested, the proposal either:
- i. Incorporates the retention of significant trees equal in number to what would otherwise be required, or
  - ii. Incorporates the retention of other natural vegetation in consolidated locations which promotes the natural vegetated character of the site.
3. Effect of Approval. Following approval of alternative landscaping by the Director, the applicant may meet the landscaping requirements of this Code by complying with the approved landscape development proposal. A copy of the approved landscape development proposal will be placed in the official file.

[...]

## **20.20.590 Parking, circulation, and walkway requirements.**

[...]

### K. Parking Area and Circulation Improvements and Design

[...]

#### 8. Internal Walkways

[...]

- c. Design Criteria. Except as otherwise specified in Part 20.25A LUC, internal walkways provided pursuant to this section must be designed and installed in conformance with the following:
- i. Surface Materials. Internal walkways must be paved with hard-surfaced material such as concrete, asphalt, stone, brick, tile, [pervious pavement](#), etc. Only nonskid paving may be used in walkways construction.